

**AMENDMENT NO. 1 NOVEMBER 2022**

**TO**

**IS 5822 : 1994 CODE OF PRACTICE FOR LAYING OF ELECTRICALLY WELDED  
STEEL PIPES FOR WATER SUPPLY  
( Second Revision )**

(Page 1, clause **1.1**, line 3) – Substitute ‘IS 3589’ for ‘IS 3589 : 1991’.

(Page 1, clause **1.2**, line 2) – Substitute ‘IS 3589’ for ‘IS 3589 : 1991’.

(Page 1, clause **1.2**, line 3) – Substitute ‘IS 2062’ for ‘IS 2060 : 1992’.

(Page 1, clause **1.2**, line 4) – Substitute ‘IS 814’ for ‘IS 814 : 1991’.

(Page 1, clause **2.1**) – Substitute the following for the existing:

‘The standards given in Annex A contain provisions, which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated at Annex A.’

(Page 2, clause **4.2.4**, last line) – Substitute ‘IS 1200 (Part 1)’ for ‘IS 1200 (Part 1) : 1992’.

(Page 2, clause **4.2.5**, last line) – Substitute ‘IS 4081’ for ‘IS 4081 : 1986’.

(Page 3, clause **4.3.4**, line 7) – Substitute ‘IS 2720 (Part 7)’ for ‘IS 2720 (Part 7) : 1980’.

(Page 5, clause **6.1**, line 2) – Substitute ‘IS 816’ for ‘IS 816 : 1969’.

(Page 5, clause **6.1**, last line) – Substitute ‘IS 814’ for ‘IS 814 : 1991’.

(Page 5, clause **6.2**, line 2) – Substitute ‘IS 3600 (Part 1)’ for ‘IS 3600 (Part 1) : 1985’.

(Page 5, clause **6.2.2**, line 5) – Substitute ‘IS 4853’ for ‘IS 4853 : 1982’.

(Page 5, clause **6.2.2**, line 6) – Substitute ‘IS 4260’ for ‘IS 4260 : 1986’.

(Page 5, clause **8.2.1**, last line) – Substitute ‘IS 3114’ for ‘IS 3114 : 1994’.

(Page 6, clause **10.2**, para 2, line 2) – Substitute ‘IS 14846’ for ‘IS 780 : 1984 and IS 2906 : 1984’.

(Page 7, clause **12.1**, last line) – Substitute ‘IS 10221 : 2008’ for ‘IS 10221 : 1982’.

**Price Group 2**

(Page 9, Annex A) – Substitute the following Annex in place of the existing:

**ANNEX A**

(Clause 2.1)

**LIST OF REFERRED INDIAN STANDARDS**

| <i>IS No.</i>                            | <i>Title</i>   | <i>IS No.</i> | <i>Title</i>   |
|--|--|---------------|--|
| 814 : 2004                               | Covered electrodes for manual metal arc welding of carbon and carbon manganese steel ( <i>sixth revision</i> )   | 4081<br>2013  | Blasting and related drilling operations – Code of safety ( <i>second revision</i> )                                   |
| 816 : 1969                               | Code of practice for use of metal arc welding for general construction of mild steel ( <i>first revision</i> )   | 4260<br>2004  | Recommended practice for ultrasonic testing of butt welds in ferritic steel ( <i>third revision</i> )                  |
| 1200 (Part 1) : 1992                     | Method of measurement of building and civil engineering works: Part 1 Earthwork ( <i>fourth revision</i> )   | 4853<br>1982  | Recommended practice for radiographic inspection of fusion welded butt joints in steel pipes ( <i>first revision</i> ) |
| 2062 : 2011                              | Hot rolled medium and high tensile structural steel ( <i>seventh revision</i> )  | 5330<br>1984  | Criteria for design of anchor blocks for penstocks with expansion joints ( <i>first revision</i> )                     |
| 2720 (Part 7) : 1980                     | Method of test for soils: Part 7 Determination of water content dry density relation using light compaction ( <i>second revision</i> )   | 5555<br>1970  | Code of procedure for conducting field studies on atmospheric corrosion of metals                                      |
| 3114 : 1994                              | Code of practice for laying of cast iron pipes ( <i>second revision</i> )  | 7808<br>1975  | Code of procedure for conducting studies on underground corrosion of metals  |
| 3589 : 2001                              | Steel pipes water and sewage (168.3 to 2 540 mm outside diameter) – Specification ( <i>third revision</i> )  | 10221<br>2008 | Coating and wrapping of underground mild steel pipelines – Code of practice ( <i>first revision</i> )                  |
| 3600 (Part 1) : 1985/<br>ISO 9018 : 2015 | Methods of testing fusion welded joints and welded joints and weld metal in steel: Part 1 Cruciform fillet weld tensile test metal in steel: Part 1 Cruciform fillet weld tensile test | 12288<br>1987 | Code of practice of use and laying for ductile iron pipes  |
|  |  | 14846<br>2000 | Sluice valves for water works purposes (50 to 1 200 mm size)   |

(Page 10, clause **B-9.2**) – Substitute the following for the existing:

**B-9.2 Nominal Thickness**

The minimum nominal thickness of steel pipe is calculated as sum of the following:

- a) thickness of shell,  $t$  derived from the formula given below,

$$t = \frac{P \cdot D}{(2a \times f \times e) + P}$$

where,

- $t$  = thickness of shell, in mm;
- $P$  = internal design pressure, in N/mm<sup>2</sup>;
- $D$  = outside diameter, in mm;
- $a$  = design factor (0.6 for working pressure and 0.9 for test pressure inclusive of surge pressure);
- $f$  = specified minimum yield stress, in N/mm<sup>2</sup>; and
- $e$  = weld efficiency of the joint (0.9 for shop welding and 0.8 for field welding).

- b) thickness for corrosion allowance, if any; and
- c) permitted manufacturing tolerance for reduction in thickness of steel plate as given in IS 3589 which is to be applied on sum of (a) and (b).

The minimum nominal thickness arrived at is subject to the minimum value of the various preferred thicknesses given for the concerned diameter in IS 3589.

(Page 10, clause **B-9.3**, last line) – Substitute ‘IS 2062’ for ‘IS 2062 : 1992’.

(Page 10, clause **B-10.1**, line 5) – Substitute ‘IS 5555 or IS 7808’ for ‘IS 5555 : 1990 or IS 7808 : 1975’.

(Page 10, clause **B-14.2**, line 2) – Substitute ‘IS 5330’ for ‘IS 5330 : 1984’.

(CED 24)